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ALTERNATIVE APPROACHES TO POLITICAL EDUCATION

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ALTERNATIVE APPROACHES TO POLITICAL EDUCATION[1]

The last decade has witnessed considerable innovation in applied educational technology, the empirical base of materials has been considerably expanded and systematized by influence from social science disciplines, and schools have begun to recognize a multitude of new purposes, methods, and environments for both teacher and student training. This explosion of innovation has generated a complex set of choices of direction and method for educators at all levels. Yet, fundamental normative commitments and theoretical constructs which would serve to aid these choices have often been ignored both by those producing the innovations and those consuming them.

Lack of consideration of the normative commitments of social education can produce significant costs for those whose primary responsibility is improving educational practice in schools. Focusing on the invention of new classroom procedures and conceptual foci in education without exploration of these commitments can easily produce citizen behavior patterns which contradict or are dysfunctional for explicitly stated educational goals. For example, suppose an American government teacher desires to promote student commitment to basic democratic values of freedom of choice. The teacher is faced with a choice of educational approaches which differ widely from the traditional historical-institutional approach used in his class. Without some explicit statement of the normative commitments underlying these alternative approaches, the teacher has no real assurance that the approach he chooses will facilitate his educational goal. In other words, he has little idea whether the behavior change that he is promoting through instruction is at all related to the promotion of student

commitments to freedom of choice. Since social education is by nature a goal-oriented process which seeks to promote a productive relationship between social actors in society, some minimal assurance that changes in the behavior of social actors serve some basic goals rather than others would seem to be at the heart of more pragmatic choices.

Yet, a casual or random consideration of value commitments can be as confounding and useless as ignorance of them. This is why linkages between values, or normative theory, is important. Systematic theoretical development is by no means a panacea for problematic choice, but it offers a sound vehicle for achieving a clear statement of values, linkages between means and ends, and an assurance of a consistent set of assumptions on which to base any educational enterprise. Explicitly stated, normative theories thus potentially consititute one basis for making choices between alternative directions in social education and offer some minimal degree of assurance that, in choosing a particular approach, a teacher would be more likely to achieve certain goals than others.

Most attempts at theorizing which include reflection on basic normative commitments have not attempted to make the types of linkages which could be termed "normative theory." They are rather loose amalgams of concepts and value commitments. Our purpose here is to set out more or less systematically the theoretical attributes of four such approaches. Three of them -- a reflective-thinking approach offered by Hunt and Metcalf (Hunt & Metcalf, 1968); a decision-making approach developed by Engle and Longstreet (Engle, 1960, 1971; Engle & Longstreet, 1972); and one that focuses on the clarification of public controversy associated with the Harvard Social Studies Project (Oliver, 1957; Oliver & Shaver, 1966; Newmann & Oliver, 1970)[2] -- present established alternatives that have been

extensively developed in the social education literature. A fourth, more recent attempt by Cherryholmes (Cherryholmes, 1971; Cherryholmes & Abramson, 1973)[3] combines a decision-making and individualistic emphasis.

The philosophical and normative bases of these approaches are explored and compared in the following pages. First, the underlying normative assumptions of the approaches are compared in terms of the general relationship posited between the individual and society. Second, the substance and structure of the value concerns of each approach are analyzed in terms of their attainability and consistency. Third, the theoretical structure of each approach is evaluated in terms of parsimony, consistency, utility and empirical reasonableness. Fourth, the implications of the approaches for research and pragmatic applications are traced. Certainly there are other philosophical bases which could be explored, yet these will reveal a great deal about the normative implications of choosing alternative approaches.

Basic Assumptions: The Relationship Between the Individual and Society

It is useful at the outset to consider the basic normative assumptions underlying various approaches to political education. It is sometimes erroneously stated that the social sciences are value free; it can never be argued that social education is value free. The values explicit or implicit in approaches to social education derive from conceptions of the good society or the good individual. Obviously, one cannot prescribe a system of social education without previously deciding what is desirable. This is why some approaches to social education, such as one dictated solely by the social science disciplines, are sometimes difficult to understand. The practitioners ignore the commitments to various types of social

orders presumed by the disciplines and in so doing remain unaware of the normative implications of their own actions (Olson, 1968).

Yet it is not an easy matter to clearly specify alternative social orders to which alternative approaches to social education might be directed. Welfare economists, among others, have demonstrated specification of relationships between individual and societal behavior is riddled with problems of aggregation (Arrow, 1963; Luce & Raiffa, 1957; Olson, 1968). Thus a view of social education predicated upon desirable behavior at the individual level does not automatically carry with it a commitment to a particular social order. On the other hand, if an approach to social education is primarily committed to a given social order, such as John Dewey's belief in the goodness of democracy, then it is equally difficult to specify what individual students should learn in order to become citizens who would perpetuate that community. Thus, at its core, the normative structure of any approach to social education faces problems of developing the composition laws necessary for linking individual student behavior and societal, or group, behavior patterns.

Social studies educators have posited a variety of composition rules linking the individual and society. Often they have argued that individual behavior must uniformally support societal ideals. Such thinking leads to a relatively monolithic and, at the same time, to a curiously ill-defined image of a "good citizen." When more diverse relationships between individual and societal behavior have been posited, they have tended to lead to value contradictions. Positions which are explicitly pluralist, allowing for variations in individual behavior, are not often advocated. This particular normative dimension of social education thus indicates some useful distinctions and problems in alternative approaches to social education.

Each of the four approaches included in this analysis confront the relationship between individual and societal behavior differently. Essentially, Hunt and Metcalf set forth a reflective thinking approach based on the assumption that the nature of a democratic society determines the function that political education is to perform. They state:

> . . . If a democratic society is to survive, there will have to be general agreement among its members as to central values. While peripheral values may remain in flux, a democracy is in peril if its citizens cannot agree on the meaning of core values such as dignity and worth of the individual, freedom, liberty and equality. (Hunt & Metcalf, 1968, p. 34)

The function of political education is to aid the American people to find a working consensus on the meaning of democracy at a given time. Consensus-building at the individual level becomes a necessary support for a democratic society. Thus political education should promote reflective thought on the part of students that increases consensus on the meaning of democracy. The relationship between individual and societal values maintains a fundamental isomorphism at a given time. Core values are similar and methods are devised for assimilating value conflicts which occur over time.

This isomorphism of values and behaviors should not be strictly interpreted. Hunt and Metcalf do value consensus, but they do not imply that every individual must agree on every value. They maintain that democracy is defined at any given time by a <u>set</u> of alternative values and behavior patterns. Thus, subgroups within any society can support one or more alternative patterns of values and behavior with are consistent within the currently accepted meaning of democracy. Also,

the meaning of democracy charges over time making value consensus a shifting, changing phenomenon and methods for coping with value conflict as important as the substance of the values themselves.

Surely such a formulation makes sense; the congruence of values and methods is a common way of melding together any culture. However, in normative terms this central assumption narrows the distribution of individual values and behaviors plausible under the theory to one select set. This happens because the dynamic interaction of value and behavior patterns are ignored. By stressing isomorphism between group and societal behavior patterns, Hunt and Metcalf eliminate the necessity of teaching students the patterns of integration that constitute a society. In this way, the complex transformation or aggregation rules for linking individual and societal behavior are largely ignored. The dynamic of the Hunt-Metcalf model is rather one of consensus on meaning which is informed through reflective thinking or value change in order to produce a new consensus at a later time. The result is incremental change based on a criterion of past definition through which demonstrably different behavior patterns are ruled out until the society can adjust to a new meaning of the acceptable societal patterns. It is in effect a type of dynamic equilibrium which tightly anchors variations in individual behavior.

Engle and Longstreet establish a similar type of isomorphism between individual and societal behavior patterns from a different approach. They make the central assumption that twentieth century social democracy is rapidly changing. Because of this state of social democracy, the function of political education becomes one of aiding individuals in developing the ability to interpret changing situations and complex social data. They state:

> The explosion of knowledge, the swiftness of change, and the range and complexity of modern social problems require a continual upgrading and reinterpretation of the social data available to the citizens . . . The ability to interpret changing situations and complex social data must be the paramount attribute of the good citizen in a modern democracy. (Engle & Longstreet, 1972, p. vii)

Again the relationship between individual and society is determined largely by the needs of American democracy. Individual behavior must change because the society is changing. Ideally, then, political education acts as a barometer which registers change from the environment and translates that change into a language which is useful for guiding individual behavior.

Essentially, then, the Engle-Longstreet formulation posits an isomorphic relationship between changing societal patterns of behavior and individual responses to change. This is not to say that individuals are passive recipients of societal stimuli. Indeed, Engle and Longstreet make it very clear that their conception of individual behavior includes a capacity to innovate and act in the face of changes in the societal environment. However, they do not develop a theory or theories of change at the societal level which would indicate patterns of behavior which would make societal behavior understandable to individual actors. Nor do they distinguish different patterns of behaivor at the individual level which could provide effective coping or innovating behavior for actors. Thus one is left with a direct isomorphism: societal phenomena, because they exist, must be understood, comprehended and acted upon by the individual. Students learn to process information and make decisions accerding to their decision-

making approach. Yet the relationship between alternative ways they might cope with change and various societal conditions is left undefined.

Oliver, Shaver and Newmann take a very different tact in their value clarification approach. They assume that in any society, policies asymmetrically distribute social and political resources. This asymmetry produces social controversy which, in turn, makes the rational discussion of public issues the requisite focus of political education. As with other approaches, Oliver, Shaver and Newmann assume that societal conditions determine the function of political education and that the training of social actors is dependent on some social state. Yet their approach emphasizes one assumption about the nature of the relationship between the individual and society which differs fundamentally from the two previous approaches. They assume that within any single distribution of societal resources, individuals can and do hold different values and act in various ways depending on their position within that distribution. Thus society is viewed as essentially pluralistic and political controversy and differences in values and behavior are viewed as universal phenomena.

The relationship between individuals and society posited by Oliver, Shaver and Newmann is thus polymorphic. Individuals will respond differentially within any given societal framework. Unlike Engle and Longstreet or Hunt and Metcalf, differences between individuals are clarified and possibly accentuated rather than minimized. Rational discussion of public issues could imply consensus, but it also opens the way for deep divisions in values and beliefs. In many ways, the individual is free to hold multiple and conflicting values compared to other individuals. Yet, however salient individual differences become, some means for aggregating individual differences into group actions and goals needs to be

demonstrated. Otherwise, a social matrix, even a pluralistic one, cannot be defined. No such aggregation mechanism is provided within the Newmann-Oliver-Shaver approach. Thus, if one wanted to support democracy as a valuable societal form, the linkages between individual value clarification and democracy are not clearly defined.

An aggregation mechanism is at least partially provided by Cherryholmes. Cherryholmes posits that because individuals are social actors, the function of political education should be to maximize the ability of individuals to make socially effective choices. The approach thus rests on an assessment of the needs of individuals rather than on characteristics of societies. The approach assumes that effective social action takes place within roughly defined group contexts and that these contexts are found in virtually any society. Therefore, individuals need to learn to take effective social action in a variety of contexts, regardless of the particular general societal structure in which the action takes place. Thus, Cherryholmes offers a partial aggregation rule by first cutting necessary linkages of the content of value concerns with any particualr societal framework and then substituting an effectiveness criterion which is context dependent.

The individual gains maximum freedom under such a model. Multiple alternative behavior patterns and values can underlie any societal framework. The particular patterns of behavior exhibited by individuals depend on the contexts within which particular choices are made, rather than the general social fabric. One assumes that the societal fabric is made up of a wide variety of decision-contexts in which individuals hold multiple memberships.

The problem, then, becomes one of developing effective behavior patterns for working within any series of these contexts. This problem is far from minor, and

the strength of the Cherryholmes formulation depends largely on the elaboration of the effectiveness criterion, which is not presently well-developed. As yet, the criterion offers one way of evaluating individual behavior in terms of group outputs; that is, whether the individual can effectively mobilize, or, for that matter, immobilize, group behavior toward goals which he values. Yet it fails to indicate what individual or social normative parameters are put on effecitve behavior and what implications for social support or change result from effecitve social action. One could say that effective action is by definition supportive of extant social orders, but Cherryholmes offers no means for determining how social change can be promoted by actions in a particular set of contexts. This can only be known by an elaboration of the particular linkages that occur between contexts that comprise any given social order.

Thus, all four approaches posit different functions for political education based on different assumptions concerning the relationship between the individual. and society. Hunt and Metcalf and Engle and Longstreet posit isomorphic relationships of different types between individual behavior and societal characteristics. Oliver, Shaver and Newmann and Cherryholmes posit polymorphic relationships. The import of these differences is not that one approach is inherently more reasonable than another, but that in making a choice between approaches at a very general level, an educator makes a normative decision about what behavior patterns political education will promote as well as what type of society one wishes to defend. As important, the relationships between individual and social behaviors is often more complex than is assumed by all four approaches, and thus the educator needs to hold this caveat salient in his thinking when prescribing the relationship between means and ends in any approach.

The Structure and Substance of Value Concerns

Given that each approach to social education embodies a social ideology directed at one or several levels of social behavior, a second criterion that will be applied concerns the structure and substance of that ideology. By structure we refer to the relational net that holds the stated values together. By substance we refer to the values put forth and the meaning attached to them. Churchman (1964) suggests a classification of value theories that seems appropriate for locating these approaches to social education in a two-dimensional conceptual space. Value theories can either incorporate values that are consistent or inconsistent. Values can also be either attainable or unattainable. Theories that fall into cell 1 include values that are consistent with each other and are in principle attainable. Value theories in this category view the life of a person or group in segments in which one or more values dominate. The individual is essentially a classical, rational problem-solver. Cell 2 includes value theories that view behavior as searching for solutions to several problems simultaneously and in which there is no appeal to a higher value that could bring consistency to lower level decisions. Thus, life is conceptualized in terms of goal sets that take on different values as the time and context changes. Value theories in cells 3 and 4 are rationalized in terms of ultimate goals. The difference lies in the fact that cell 3 posits an ultimate value in terms of which a hierarchy of lesser values are arranged and all acts are evaluated in terms of approximation to that ultimate value. Finally, theories of values that qualify for cell 4 admit the possibility that ultimate values may be in conflict; that is, values such as freedom and equality may in principle be contradictory. It takes little reflection on this schema before it is evident that the logical structure and behavioral consequences of these various value theories are considerably different from one cell to the next.

Figure 1: A Schema for Classifying Value Theories

	Attainable	Unattainable
Consistent	1	3
Inconsistent	2	4

Such differences are illustrated by applying the Churchman scheme to each of the four approaches to political education. The fit of the approaches to the scheme is far from exact, but the differences between the approaches on each of the dimensions of attainability and consistency are significant. The Hunt-Metcalf reflective-thinking approach focuses on the linkage between the individual and society by assuming that a hierarchy of fundamental values can be shared by all men which will provide the framework for consensual decision-making. The approach is thus most characteristic of a consistent, unattainable value theory found in cell 3 of the Churchman scheme. Hunt and Metcalf state that the purpose of education is to promote that consensus through reflective thinking. Their model would seem to require that: 1) Individuals reflecting on ultimate values share hierarchically-ordered value structures; 2) Individuals can and will make similar translations to pragmatic situations; and 3) Individual value preferences either change in the same direction at the same rate or are unaffected over time.

In a sense, Hunt and Metcalf solve the linkage problem between the individual and society by elimination. If individuals share ultimate societal values which are always preferred over secondary values, then preferences are automatically aggregated to reflect societal support or change. This is, in many ways, the classic model of inculcating fundamental societal values held by many political educators. Needless to say, the linkage between society, education, and the individual would have to be extraordinarily strong for this model to be effective.

The Engle-Longstreet approach poses an individual problem-solver who can face situations by applying a hierarchically-ordered, consistent set of values which is characteristic of cell 1. As society is constantly changing and new information is gained, the rational problem-solver will process new information

and apply it against his value scheme. The focus of social education is then the decision-making process through which values are applied against new information producing a choice which maximizes individual values. The expectation is that as a result of his education, the individual will be able to consistently make decisions which will maximize his satisfaction. New values will fit into the value ordering consistently and new information will change decision outcomes depending on how it fits the value framework. This prescription is clearly based on three central assumptions: 1) A problem-solver is essentially autonomous (his decisions are not bound by others' ecisions); 2) a problem-solver is sovereign (he can enforce his decisions); and 3) a problem-solver is rational in the strict sense (he can consistently order preferences).

If the general assumption of the isomorphic relationship between societal change and individual behavior are integrated with their value commitments, support for a democratic polity, a clear inconsistency arises. If a reciprocal relationship between societal change and individual behavior is to be maintained, then the commitment to democracy is clearly inappropriate because the linkage between individual and social or <u>group</u> behavior is left unspecified. Rational, autonomous, sovereign individuals will not necessarily support or change a given social order. If the social order dictates their behavior and it is desirable to understand and act based on a theory of maintenance or change, then some specification of group decision-making is necessary so that the individual can have some minimal idea of the societal effects of his decisions. It is difficult indeed to see how democracy or any other social or political order is maintained under these assumptions unless a fourth assumption is made such as: all problem-solvers make like or compatible decisions by sharing information and values. Otherwise, the linkage

between the individual and a democratic society is broken by the problem-solving orientation of the approach.

The Oliver-Shaver-Newmann value clarification approach posits quite different assumptions. Its basic premise is that values will conflict across individuals and groups as in cell 4. Individuals themselves are continually placed in group situations in which conflicting values are articulated. The central problem is not to resolve such conflicts, but to clarify them. The focus for education is thus on development of a means for individuals to discuss rationally issues and alternatives. In this way, human dignity and its corollaries, rational consent and freedom of choice are maximized as much as is concretely possible. This model is also based on several assumptions: 1) Discussants recognize the linkages between concrete issues and unattainable values such as freedom; and 2) discussants do not have to resolve or reconcile conflicting value positions.

It is obvious to think that a coalition-logrolling model makes it possible for societal decisions to be made without consensus on value positions; however, it is difficult to realize how such decisions would at the same time support both rational consent and freedom of choice unless a type of side payment is offered which would be freely chosen over the decision outcome itself. In other words, an additional assumption needs to be added: 3) Decision-makers have resources which are as valuable as those distributed by the policy to offer to those who do not benefit from the policy. It is only through this type of bargaining arena that inconsistent, unattainable values can be upheld and the link between the individual and society can be preserved.

The Cherryholmes' social action approach seems to find its best fit in cell 3. Social actors are posited as continuously barraged by problematic situations

requiring decisions to which contradictory values may be applied. Values cannot always be ordered hierarchically across different types of decision situations. In this sense, values are context-relevant and depend upon the goals of the decision-maker. The focus of social education is thus to teach students how to clarify their values thoughtfully and apply them to different types of decision-situations depending on their goals as social actors. Essentially, the model is based on the fundamental assumption that social actors can determine which of various values are important in diverse decision-making contexts; that only individuals define their subjective utility in any given context. Clearly, this model can accommodate a pluralistic society but only completely applies if values can be consistently ordered within contexts by participants.

In contrast to the Oliver-Shaver-Newmann formulation which seems to imply some type of common bargaining arena for linking individual and societal concerns, Cherryholmes' approach separates out multiple bargaining contexts in which inconsistent, attainable values can be applied. As long as the values can somehow be integrated into a decision outcome in a given context, individual social actors can satisfy the value commitments posited in this scheme. These commitments are also consistent with the pluralist relationship posited between the individual and society. The pluralist approach to instructional goals, then, appears to indicate the necessity of appealing not only to group, but selective individual incentives in order to support the linkage between the individual and society. This is surely a dimension which is implicit in the Oliver-Shaver-Newmann approach, but probably most easily implemented by focusing on societal sub-contexts rather than generalizations across the entire social fabric.

Both the value assumptions concerning individual actors in society and the relationships between society, education and the individual are loaded heavily with normative content. All four approaches posit different value commitments and structure those commitments in different ways. Thus a student working under a Hunt and Metcalf approach will not only learn different substantive value concerns than he would under the Oliver-Shaver-Newmann approach, but he will also learn different ways of structuring and applying his value commitments. It is clear, then, that the various normative assumptions underlying the approaches have rather straightforward implications for not only educational theory, but pragmatic classroom and curriculum applications as well. These implications can be extended further by quite a distance by an analysis of the theorietical structure of each approach.

The Theoretical Structure Underlying the Approaches

Thus far, some general aspects of the normative commitments of the four approaches have been outlined. Comparisons have been made between the approaches in light of the relationships they posit between the individual and society and the content and structure of value concerns. To dig more deeply into each approach, some more systematic exploration of the theoretical structure underlying each approach is necessary. It is through the analysis of the principal components and interrelationships embodied in each approach that their structure can be identified and compared.

In undertaking a systematic analysis of the theoretical structure of the four approaches, one must move rather gingerly. Theoretical analysis is one way of abstracting out the underlying structure in any set of ideas. As a method, it does contribute some systematic ways of going about analyzing the main tenents of each approach. Yet, as with the general realtionships and

models posited earlier, the complete specification of the theoretical structure of each approach is only roughly approximated. The approaches themselves were not presented in a way designed for formal theoretical analysis. Therefore, rather than attempt to force loose amalgams into a formal framework from which they can be critiqued, our purpose is chiefly to generally explore the potential of each framework from its philosophical and normative base. We strongly believe that if these caveats are recognized, the deductions derived through the formal statement of axioms and theorems do offer some conclusions about each approach and its implications for educational practice which would otherwise not be surfaced. A complete statement of definitions of the terms, axioms, theorems and proofs used in the analysis of the frameworks is contained in the Appendix.

Generally, the approaches have widely different axiomatic structures. This is significant because it is through the axioms that theorems can be proved and deductions made. In addition, in each case, the structure of the theory itself is very different. The types of relationships between the theorems which are the basic components of the theories are stronger in some cases than in others. As a result, some theories deliver more powerful deductions. The consistency of the axiomatic structure, the type of theoretical structure, the power of the deductions, and their empirical reasonableness are the criteria which will be used here. First, we will proceed through each theory and analyze how the criteria are met. As we progress, conclusions will be drawn and comparisons made.

The axiomatic structure of the Hunt-Metcalf approach can be outlined as follows:

	Verbalization	Formalization
Axiom 1	Nature of democratic society.	r
Axiom 2	The nature of democratic society requires the creative resolution of conflict.	$r \supset s$
Axiom 3	The creative resolution of conflict implies that the consideration of alternatives will help American people find consensus on the meaning of democracy.	$s \supset (q \wedge x)$
Axiom 4	Consideration of alternatives promotes reflective thinking.	$x \supset t$
Axiom 5	Reflective thinking implies the development of insight which implies a future orientation.	$t \supset (u \wedge z)$
Axiom 6	A future orientation implies continuous learning.	$z \supset v$
Axiom 7	The creative resolution of conflicts is assured if and only if interpersonal and intrapersonal conflicts and problems are studied.	$s \equiv w$

The axiomatic structure specifies the major components of the Hunt-Metcalf approach and serves as a basis for further theoretical exploration. The axioms demonstrate that the goal of political education is to find consensus on the meaning of democracy. They also demonstrate how instructional content and methods can be interrelated in order to achieve that goal. For example, Axiom 3 indicates that the creative resolution of conflicts is linked to consensus-building. Axiom 7 states that the study of interpersonal and intrapersonal conflicts and problems promotes conflict resolution.

The axiomatic structure thus appears to be clear and consistent. The analysis of the axiomatic structure contributes a basis for further theoretical analysis and formalization. It is through such theoretical analysis that the utility of the approach can be determined.

One set of basic theorems and deductions which can be made from these axioms are shown on pages 4-6 of the Appendix. The theoretical structure is tight-knit and concatenated. Each theorem builds on the next, yet without dependence on the first theorem. The deductions are powerful. Essentially, the theory provides a basis for deducing that if social education is to be designed to promote the creative resolution of conflict, it then must focus on reflective thinking which produces the development of insight. In turn, the development of insight depends upon continuous learning and a focus on problems which apply across individual and interpersonal levels.

The major problem in the theoretical structure is that the axioms do not provide a necessary link between Hunt and Metcalf's central goal, aiding the American people to find consensus on the meaning of democracy (Theorem 1) and most of the means (Theorem 2-6). Therefore, because the theory is broken at

this point, Hunt and Metcalf lose much of the linkage to previous normative concerns about the relationship between individuals and society and the models of man. One could thus say that in accepting the theory for practical use in the curriculum, an educator would be sure of a consistent means of proceeding, but he would never be sure of either goal attainment or normative implications.

Despite the lack of articulation between instructional design and goals, at least according to this particular formalization of the Hunt-Metcalf approach, the theoretical analysis does reveal some theorems which are key for empirical study. Essentially, one can state that if situations can be identified in which political education includes creative resolution of conflict and reflective thinking, then, given the assumptions specified by the axioms, the instructional design provided by Hunt and Metcalf will be consistent and sound. The presence or absence of other conditions is not necessary to ensure their method.

Thus, the analysis has indicated some points of discontinuity and some salient empirical foundations of their approach. Engle and Longstreet's formulation appears on the surface to be demonstrably different from Hunt and Metcalf's approach. The axiomatic structure can be outlined as follows:

	Verbalization	Formalization
Axiom 1	Twentieth Century social democracy is rapidly changing.	q
Axiom 2	Because Twentieth Century society is rapidly changing, individual knowledge and behavior must also change.	$q \supset r \wedge x$

	Verbalization	Formalization
Axiom 3	If individual knowledge and behavior must change, then we must adjust the knowledge of individuals.	$r \supset s$
Axiom 4	Assuming that we need to update an individual's knowledge, students should exhibit the ability to interpret changing situations and complex social data.	$s \supset t$
Axiom 5	An individual enhances his ability to interpret changing social situations and complex social data if he can interpret situations within his own frame of reference.	$t \supset u$
Axiom 6	Focusing on an individual's frame of reference implies a topical approach.	$u \supset w \wedge y$
Axiom 7	In order for students to increase their ability to interpret changing situations and complex social data, they need to have an education which focuses on useful knowledge of the social and political world.	$t \supset z$

The axiomatic structure is fairly complex and includes different elements than the Hunt-Metcalf formulation, yet some striking similarities appear when the structure of the theory is examined.

The theorems and deductions are outlined in pages 7-11 of the Appendix. As in the Hunt-Metcalf approach, the axioms do not provide linkages between the goal of social education, the maximization of the students' ability to interpret changing situations and complex social data (t), and the means through which that goal is accomplished; namely, the topical approach (w), the decision-making focus (x), and action-concepts (y). Because this linkage is absent or indirect, the power of the deductive structure is threatened at the outset. Essentially, all one can deduce is that social education should focus on the three components, regardless of the goals of social education. In this way, the linkage between instructional methods and goals is broken in much the same way as in the Hunt-Metcalf approach.

In addition, the key theorem states that if Twentieth Century social democracy is rapidly changing, then social education should maximize the ability of students to interpret changing situations and complex social data. From this theorem, conclusions are drawn that social education should focus on a topical approach, decision-making and action-concepts. Yet the structure of the theory is not integrated beyond the necessity of the first theorem. This fact and the initial weakness of the axiomatic structure combine to produce a weak deduction in Theorem 5. In this way the theory presents no integrated rationale for pursuing pragmatic teacher training or student materials. Unless each of the theorems were empirically verified, no basis would be established for accepting the deduction in Theorem 5. Yet each theorem could potentially be verified, and the analysis produces a wealth of possible avenues for empirical research.

The Oliver-Shaver-Newmann approach can be outlined as follows:

	Verbalization	Formalization
Axiom 1	Social policies assymmetrically distribute social and political resources.	r
Axiom 2	The assymmetric distribution of social and political resources creates a need for conflict clarification.	$r \supset t$
Axiom 3	The need for conflict clarification requires a rational discussion of public issues.	$t \supset q$
Axiom 4	A rational discussion of public issues implies freedom of choice and rational consent.	$q \supset v \wedge w$
Axiom 5	Rational consent is necessary for human dignity.	$v \supset u$
Axiom 6	Human dignity requires the clarification of different viewpoints.	$u \supset y$
Axiom 7	Clarifying different viewpoints occurs if and only if education focuses on rationality.	$y \equiv x$

	Verbalization	Formalization
Axiom 8	Rationality implies the development of analytical skills, acquisition of information, and value clarification.	$x \supset z_1 \wedge z_2 \wedge z_3$
Axiom 9	If analytical skills, information, and values are stressed, then social education should focus on issues that transcend topics.	$z_1 \wedge z_2 \wedge z_3 \supset z$

The axiomatic structure is both explicit and consistent. Yet, the general problem of relating goals to means is evidenced, for the rational discussion of public issues is not linked in direct ways to the focus on human dignity, rationality, or issues that transcend topics. It should also be noted that part of Axiom 4 is also never used. The authors consciously focus on rational consent and avoid freedom of choice. The potential empirical contradiction between these two terms is thus never faced in the theoretical structure underlying the approach.

The theoretical structure itself (Appendix, pp. 12-16) is tight-knit. As is demonstrated in the final deduction (Theorem 5) both axioms and theorems contribute heavily to the conclusions that are made. The final deductions are strongly linked: Social education should promote the development of human dignity which is achieved through a focus on rationality and issues that transcend topics. The deduction is based largely on axioms regarding clarification of viewpoints and individual rationality; thus, the normative assumptions of their model of man are linked carefully into their deductions. This approach, then, is unqiue

in the power of the deductions that can be derived and the tightness of the theoretical structure. A wealth of empirically testable theorems are thus provided by the approach and a strong linkage can be made between the theoretical structure and empirical classroom practice.

Yet, the scheme does not justify the link to society or their goal of the rational group discussion of public issues. The theory thus remains fragmented for, though the normative base of the means is clear and consistent, the rationale lacks a clear relationship to goal achievement in individual or societal terms. Thus, the approach shares with others previously discussed the general problem of integrating individual and social goals with the instructional means to achieve them. This problem is neither unusual or unremediable, yet does reveal a common lack of congruence between general goals of political education and the more pragmatic procedures and concepts which are posited to guide instructional design.

In general, the axiomatic structure of Cherryholmes' social action theory can be formalized as follows (see Appendix pp. 17-20 for complete statements):

	Verbalization	Formalization
Axiom 1	Students are social actors.	s
Axiom 2	Because students are social actors they need to act effectively.	$s \supset r$
Axiom 3	If students are to act effectively, then their ability to make effective choices should be maximized.	$r \supset q$

	Verbalization	Formalization
Axiom 4	Students' ability to make effective choices is maximized if and only if choices are made in social and political institutional contexts.	$q \equiv t$
Axiom 5	Effective decisions are maximized exactly on the condition that choices are future oriented.	$q \equiv u$
Axiom 6	Effective choices are maximized if and only if students are continuous learners.	$q \equiv w$

The axiomatic structure presented here is clear and consistent. The most important feature of this structure are the clear linkages between the goal of social education, to maximize the ability of students to make socially effective choices (q), and the means through which this goal is attained, the study of decision-making in contexts (t), the study of decision-making as future oriented (u), and continuous learning (w). The deductive power of the theory stems largely from these explicit and strong connections.

The theoretical structure developed depends heavily on the first theorem. That theorem states that because students are social actors, political education should maximize their ability to make socially effective choices. As is demonstrated in the Appendix, the proof of this theorem allows several other theorems to be validated; namely, political education should focus on institutional

contexts, future orientations and continuous learning. Each of the four theorems provide the basis for deducing Theorem 5. This theorem demonstrates that, given the axioms and having proved the theorems, it can be stated that social education will maximize the ability of students to make socially effective decisions if, and only if, social education focuses on each of the three variables proposed.

What is provided is a statement of what social education needs to include if it is to accomplish the goals specified in the theory. The deduction becomes an empirical hypothesis which, if validated, lends credence to the entire scheme. This hypothesis can be tested given operational measures. Therefore, if one accepts the basic normative assumptions stated earlier and the theoretical structure, the theory provides a basis for implementing a program on the concrete level.

One of the reasons why the Cherryholmes approach does not share the problem of linking means and goals so far evidenced in the three other approaches is that it does not attempt to prescribe a preferred societal context. This obviates one problem, but surely presents others. In fact, as we have previously stated, political education does rest on a linkage between individuals and the social context within which they think and act. Whether or not a program for political education can be designed which provides these linkages is an open question; nonetheless, Cherryholmes' approach does not attempt to meet the challenge and thereby presents a consistent, empirically testable approach of a different nature than those previously analyzed.

In general, then, the theoretical analysis undertaken here has demonstrated some general problems in the theoretical structure underlying each of four major approaches to political education. Throughout many of the approaches there is

a generally unresolved problem of linking instructional means and goals. In some approaches the means themselves are disconnected or potentially contradictory. Thus the practitioner is by no means guaranteed a neat linkage between theory and practice. Yet the analysis has also revealed a wealth of possible guidelines for research and application. As a result of this analysis, we have a notion of what is needed in the way of articulation of the theories and of the significant ways in which all four provide alternative directions for political education. The research and pragmatic implications of the four approaches are discussed below.

Implications for Research and Practice

The difficulty of translating abstract approaches into researchable propositions and specific instructional packages should not be under estimated. The formalization, however, has guided us toward some specifiable propositions with a certain degree of potential for useful operational measures of some of the major concepts and relationships posed by the authors. Ideally, the formalization would reveal key points for comparative analysis of the approaches which would predict differential effects on student behavior. Although specific guidelines are not yielded by these approaches, each theory does indicate how operationalizations could be made and a list of propositions could be formed based on general instructional strategies.

The general problems of moving from normative theory to empirical research are many and range from experimentor bias to normative advocacy in the definition of abstract concepts. Yet, the procedure is rather straightforward. The statements of any normative theory can be divided into three groups depending on how they function as part of the argument of the theory. One set of statements constitute the axioms, or assumptions about the empirical context in which the theory is

is couched. A second set of statements constitute the theorems, or the normative objectives which form the body of the theory. A third set constitutes the deductions, or conclusions about how the theorems can be linked to bridge or connect statements of objectives. These conclusions form the major normative prescriptions of the theory. These three types of statements can be symbolized as follows:

Contextual assumptions	A, B, ... N
Objectives	a, b, ... n
Prescriptions	a*, b*, ... n*

Thus a normative theory may be viewed as a set of statements of the general form: If (A, B, ...N) is the case, if (a, b, ... n) is desired, then (a*, b*, ... n*) must be implemented. It is those desired objectives which are used to make the prescriptions for implementation that constitute the major testable hypotheses of any normative theory. It is these hypotheses which are of major interest when the research and pragmatic implications of normative theories are to be derived.

Whereas it is sometimes possible to design a clear cut test of an hypothesis (Popper, 1959), only in rare cases are theories falsified (Kuhn, 1962). Given the improbability of falsifying any of these theories, we are led to consider what different kinds of information efforts at empirical research would contribute.

The most basic type of information is whether the interpretations, definitions and operational indicators have been developed with sufficient explicitness to permit empirical research. If a theory is inadequately specified in many and/or key places, then it is not a theory of phenomena. Hunt and Metcalf may face such a problem in defining democratic consensus, Oliver-Shaver-Newmann in elaborating rational consent and freedom of choice, Engle and Longstreet with respect to decision models, and Cherryholmes on the meaning of social effectiveness.

From our previous analysis it has been demonstrated that the linkages in these theories are logically necessary and sufficient; research can indicate the extent to which the linkages are empirically necessary and sufficient. Research can inform normative theorizing by introducing additional variables and hypotheses to extend the original statements, while at the same time maintaining the essential structure of the theory. Without research findings we can only speculate about additional variables that might be germane to the purposes stated.

Finally, empirical research could illuminate concrete similarities and differences between approaches and the pragmatic implications of choosing one approach rather than another. For example, if appropriate settings were defined, comparisons could be made across all four approaches which would discriminate which instructional conditions were necessary for the achievement of instructional goals of each approach, which were common requisites and which were unique requisites of each approach. The following discussion indicates some specific research possibilities.

The Hunt-Metcalf approach contains many empirical hypotheses which lend themselves to comparative analysis. The dependent variable is the achievement of consensus on the meaning of democracy. This is a very different result than that postulated by the other approaches. Yet the key independent variables -- the development of reflective thinking, continuous learning, and the confrontation of problems that cross individual and interpersonal levels -- have parallels in other approaches discussed here. One major hypothesis which could facilitate comparative analysis could thus be: If political education focuses on increased development of reflective thinking, continuous learning and confrontation of problems that cross individual and interpersonal levels, then the degrees of ability on the part of individuals to find consensus on the meaning of democracy will increase.

Although the Engle-Longstreet approach has less clear-cut implications for research based on the formalization, it does also lend itself to parallel lines of research. If, for the moment, we exclude the questions about linkages to democratic society and rearrange some of the logic of the scheme, one major hypothesis for research would surely include two interrelated dependent variables: 1) the ability to interpret changing situations and complex social data and 2) the ability of the individual to be a significant decision-maker. The relevant independent variables would then be the analysis of a topical approach, action-concepts, and decision-making skills. The hypothesis could then be formulated as follows: If political education increases its focus on topical approaches, action-concepts and decision-making skills, then students will increase their ability to interpret changing situations and complex social data as well as their roles as significant decision-makers.

Without belaboring the point, the Oliver-Shaver-Newmann framework could be given a parallel research focus facilitating useful comparisons. Yet, a far more important point is raised by their model. The goal of rational discussion of public issues (dependent variable) that is promoted by focusing on human dignity, rationality and analytical skills (independent variables) is deeply embedded in another, more general, value framework. At the same time that the authors promote the rational discussion of public issues, they also desire to support superordinate goals of freedom of choice and rational consent. These two higher-order goals, in turn, support the actualization of the preservation of human dignity. As we have noted before, the normative assumptions underlying each approach require value choices on the part of any practitioners. The Oliver-Shaver-Newmann framework thus pinpoints additional research needs. For all the comparisons

that can be fruitfully made, we then need to determine the linkage between alternate behavior outcomes demonstrated by the analysis and larger normative concerns. Do students who rationally discuss public issues actually maximize their freedom of choice? What type of social fabric is supported by citizens educated under one framework rather than another?

The deductions from Cherryholmes' theory indicate that relationships between at least four variables are key to both empirical research and instructional design. "Effective social action" becomes the key dependent variable and the development of context-relevant decision-making skills, future orientations and continuous learning capacities become the key independent variables. Theorem 5 indicates that the independent variables are highly interactive, all are necessary and none is in itself sufficient for promoting effective social action. Thus, one major proposition stemming from the Cherryholmes' approach is that: If the focus of political education increases context-relevant decision-making and future orientation and continuous learning, then students' ability to take effective social action increases.

It is easy to see how empirical research could inform each of these approaches and provide criteria for pragmatic choices between them. Research could also be designed through which theories could be simultaneously compared. For example, there are distinct parallels between the hypotheses that have been derived from the Engle-Longstreet and Cherryholmes approaches. Although the Engle-Longstreet definition of a "significant decision-maker" is distinctly oriented toward affecting the policy-decisions through democratic participation, some interesting possibilities for comparative research are posed. If both approaches were translated into concrete instructional materials, then an experimental setting could be devised

in which alternate groups were exposed to different segments of materials from one or both approaches. Groups could then be placed in decision-situations in which various dimensions of their ability to behave as effective social actors could be determined. Possible results could be that predisposition to act, capacity to act, and action-taking are promoted by significantly different types of materials or that certain segments of each set of materials are substitutable to produce like results. Thus there are multiple ways that the four theories could be researched. Surely, research designed in any of these ways would aid practicioners tremendously in their selection of materials and in the basic recognition of the normative implications of different approaches.

FOOTNOTES

[1]The authors would like to express their appreciation to Maurice Hunt, Wilma Longstreet and Fred Newmann for thoughtful comments on earlier versions of this paper and to the United States Office of Education who supported the preparation under grant OEG-0-70-2028(725).

[2]Work on the jurisprudential approach to social studies education at Harvard has had a long and distinguished history. We were faced with two problems, identifying a specific formulation of that position and making appropriate attributions. We selected the Newmann and Oliver (1970) statement to analyze because it is one of the most recent statements of their purpose and presumably would reflect refinements resulting from their curriculum development experiences. With respect to attribution we settled upon Oliver-Shaver-Newmann to reflect the chronology of participation. Thus we arrive at the anomoly of referring to Newmann's book and citing his name last.

[3]One of the authors is sensitive to problems that inhere in critiquing his own work in a comparative theoretical analysis of the four approaches to social education noted above. A few comments are in order. The paper, "An Approach to Social Education," was completed prior to the collaboration that led to the present paper. This meant that the criteria selected for characterizing these theories came subsequent to that work, such as the use of symbolic logic to formalize each argument and the reliance upon Churchman to clarify the value stance of each theory. It is true, as would be expected, that work on this paper sharpened and refined some of the thinking in that earlier paper.

The authors of each of the theories received copies of earlier versions of this paper for reactions and comments. At least one contributor from each position responded and their responses were often very useful in clarifying our interpretation of their writing and the subsequent analysis. This endeavor and those communications certainly provide an example of the distinction between two terms that often occur in scientific discourse: inter-subjectivity and objectivity. For sociological as well as philosophical reasons we are very conscious of laying claim only to the former.

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APPENDIX: FORMALIZATIONS OF FOUR ALTERNATIVE APPROACHES

The following are abbreviated formalizations of each of four approaches of political education. In each case terms are defined, axioms are stated, and abbreviated formal logical proofs are given.

HUNT-METCALF APPROACH

1 - Definitions of Terms

p: social education

q: aid American people to find consensus on the meaning of democracy

r: nature of democratic society

s: creative resolution of conflict

t: reflective thinking

u: development of insight

v: continuous learning

w: focus on problems which apply across individual and interpersonal levels

x: consideration of alternatives

z: development of future orientation

2 - Axioms

Axiom 1 r

Nature of democratic society

". . . if a democratic society is to survive, there will have to be a general agreement among its members as to central values. While peripheral values may remain in flux, a democracy is in peril if its citizens cannot agree on the meaning of core values such as dignity and worth of the individual, freedom, liberty, and equality." (Hunt and Metcalf, 1968, p. 34.)

Axiom 2 $r \supset s$

The nature of democratic society requires the creative resolution of conflict.

"An apt term for describing the unique task of education in a democracy is 'creative resolution of conflict'." (Hunt-Metcalf, 1968, p. 35.)

Axiom 3 $s \supset q \wedge x$

The creative resolution of conflict implies that the consideration of alternatives will help American people find consensus on the meaning of democracy.

"A challenge now before American education is to help the American people find consensus on the meaning of democracy -- but in ways consistent with the requirements of democratic society. . ." (Hunt and Metcalf, 1968, p. 34.)

". . . achievement, by disputing persons and by individuals suffering inner turmoil, of 'third alternatives' that is, new positions which, although perhaps to some degree compromise competing outlooks, also include genuinely new values which effectively erase conflict and place life on a level of deeper insight." (Hunt and Metcalf, 1968, p. 35.)

Axiom 4 $x \supset t$

Consideration of alternatives promotes reflective thinking.

"According to field theorists, problems are solved by bringing to bear meanings (insights) gained in previous learning situations. But in the process, the earlier meanings are enlarged and refined so that the learner achieves a reconstruction of his cognitive pattern. This type of learning is usually called reflective." (Hunt and Metcalf, 1968, pp. 36-37.)

Axiom 5 $t \supset (u \wedge z)$

Reflective thinking implies the development of insight and a future orientation.

"A single act of thought may begin with reconsideration of a particular belief or item of knowledge; it may end with affirmation, or rejection, or modification of this same belief or knowledge. But in the learning process, additional data are evaluated; new facts come to the attention of the learner. His store of tested beliefs expands. He 'knows more' in the sense both of possessing additional quantities of material, factual and conceptual, and of gaining greater depth of understanding." (Hunt and Metcalf, 1968, p. 51.)

Axiom 6 $z \supset v$

A future orientation implies continuous learning.

"Learning is to be regarded, then, as a chain affair -- one insight leading to another, the latter leading to still another, and so on, ad infinitum." (Hunt and Metcalf, 1968, p. 50.)

Axiom 7 $s \equiv w$

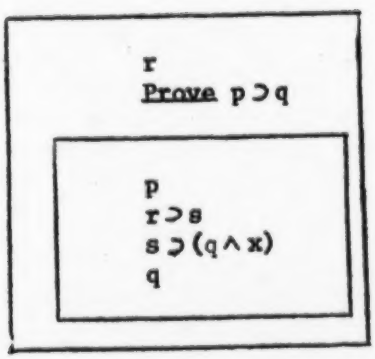
The creative resolution of conflicts is assured if and only if interpersonal and intrapersonal conflicts and problems are studied.

". . . the chief role of education in a democracy is intelligent or critical transmission of cultural heritages, during the course of which disagreements among individuals and incompatibilities in personal outlook are exposed and resolved creatively." (Hunt and Metcalf, 1968, p. 35.)

3 - Theorems and Proofs

Theorem 1 $r \supset (p \supset q)$

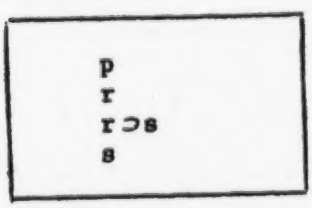
Proof: ~~Prove~~ $r \supset (p \supset q)$



Axiom 2
Axiom 3
Axiom 2, 3, MP, 5

Theorem 2 $p \supset s$

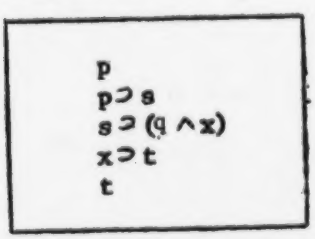
Proof: ~~Prove~~ $p \supset s$



Axiom 1
Axiom 2
Axiom 1, 2, MP

Theorem 3 $p \supset t$

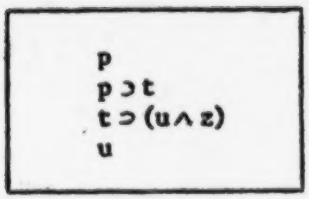
Proof: ~~Prove~~ $p \supset t$



T_2
Axiom 3
Axiom 4
T_2, Axiom 3, MP, 5,
Axiom 4, MP

Theorem 4 $p \supset u$

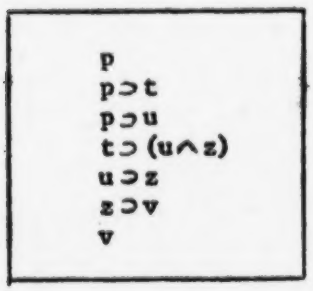
Proof: ~~Prove~~ $p \supset u$



p	
$p \supset t$	T_3
$t \supset (u \wedge z)$	Axiom 5
u	T_3, Axiom 5, MP, S

Theorem 5 $p \supset v$

Proof: ~~Prove~~ $p \supset v$



p	
$p \supset t$	T_3
$p \supset u$	T_4
$t \supset (u \wedge z)$	Axiom 5
$u \supset z$	T_3, T_4, Axiom 5, MP
$z \supset v$	Axiom 6
v	$u \supset z$, MP, Axiom 6, MP

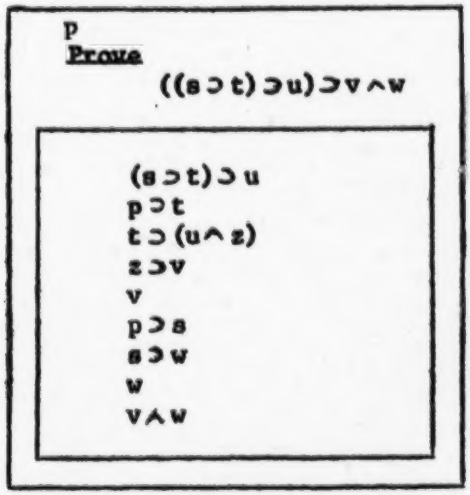
Theorem 6 $p \supset w$

Proof: ~~Prove~~ $p \supset w$

p	
$p \supset s$	T_2
$s \supset w$	Axiom 7, BC
w	T_2, Axiom 7, MP

Theorem 7 $p \supset (((s \supset t) \supset u) \supset v \wedge w)$

Proof: **Prove** $p \supset (((s \supset t) \supset u) \supset v \wedge w)$



ENGLE-LONGSTREET APPROACH

1 - Definitions of Terms

p: social education

q: Twentieth Century social democracy is rapidly changing

r: necessity of change in individual knowledge and behavior

s: updating knowledge of individuals

t: the ability to interpret changing situations and complex social data

u: focus on the individual's frame of reference

v: focus on problem situations

w: topical approach

x: individuals must be significant decision-makers

y: action-concepts

z: focus on useful knowledge of the social and political world

2 - Axioms

Axiom 1 q

Twentieth Century social democracy is rapidly changing.

"The explosion of knowledge, the swiftness of change, and the range of complexity of modern social problems require a continual updating and reinterpretation of the social data available to the citizen." (Engle and Longstreet, 1972, p. vii.)

Axiom 2 $q \supset r \wedge x$

Because Twentieth Century society is rapidly changing, individual knowledge and behavior must also change and individuals must be significant decision-makers.

"The goal of social studies -- the raison d'etre -- is citizenship education. In a democratic society this can only mean that the citizen's models for significant decision-making will be increased and refined." (Engle and Longstreet, 1972, p. 96.)

"While not wishing to underestimate the importance of comprehending the ongoing functions of one's society, it occurs to us that it is equally important for the citizen to understand how he, the citizen, goes about reaching conclusions, making decisions, and acting upon decisions." (Engle and Longstreet, 1972, pp. 49-50.)

Axiom 3 $r \supset s$

If individual knowledge and behavior must change, then we must update the knowledge of individuals.

"The explosion of knowledge, the swiftness of change, and the range and complexity of modern social problems require a continual updating and reinterpretation of the social data available to the citizen." (Engle and Longstreet, 1972, p. vii.)

Axiom 4 $s \supset t$

Assuming that we need to update an individual's knowledge, students should exhibit the ability to interpret changing situations and complex social data.

"The ability to interpret changing situations and complex social data must be the paramount attribute of the good citizen in a modern democracy." (Engle and Longstreet, 1972, p. vii.)

Axiom 5 $t \supset u$

An individual enhances his ability to interpret changing social situations and complex social data if he can interpret situations within his own frame of reference.

"His conception (the citizens') of what is possible may be thought of as descriptive or explanatory of the relationships among the realities that he perceives in the world around him." (Engle and Longstreet, 1972, p. 15.)

Axiom 6 $u \supset w \wedge y$

Focusing on an individual's frame of reference implies a topical approach and a focus on action concepts.

"It is necessary to organize information around topics if we are to accomplish a curriculum that makes sense to the individual." (Engle and Longstreet, 1972, p. 6,)

". . . actions taken by individuals (while perhaps differing in specific content), could be classified under categories which were equally valid at the societal and at the personal level . . . The effort, then, was to achieve a range of action-concepts which could refer to all the known aspects of citizenship education at the societal and personal levels." (Engle and Longstreet, 1972, p. 47.)

Axiom 7 $t \supset z$

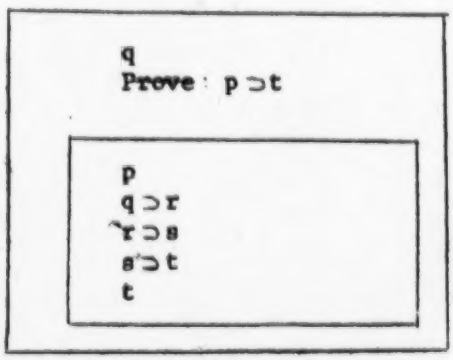
In order for students to increase their ability to interpret changing situations and complex social data, they need to have an education which focuses on useful knowledge of the social and political world.

"Human beings organize and reorganize their experiences in logical configurations suitable to their life needs." (Engle and Longstreet, 1972, p. 2.)

3 - Theorems and Proofs

Theorem 1 $q \supset (p \supset t)$

Proof: ~~Prove~~ $q \supset (p \supset t)$



Axiom 2, s
Axiom 3
Axiom 4
Axiom 2, 3, 4, MP

Theorem 2 $p \supset x$

Proof: **Prove** $p \supset x$

p	
$q \supset (p \supset t)$	T_1
q	Axiom 1
$q \supset x$	Axiom 2, s
x	Axiom 2, MP

Theorem 3 $p \supset w$

Proof: **Prove** $p \supset w$

p	
$q \supset (p \supset t)$	T_1
q	Axiom 1
$p \supset t$	T_1, Axiom 1, MP
$t \supset u$	Axiom 5, BC
$u \supset w$	Axiom 6, s
w	Axiom 5, 6, MP

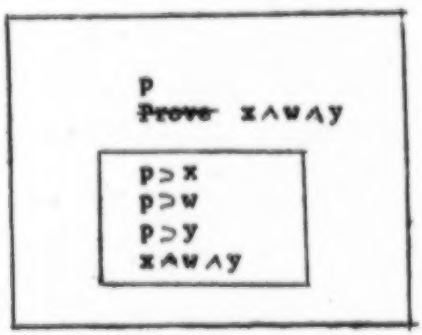
Theorem 4 $p \supset y$

Proof: **Prove** $p \supset y$

p	
$q \supset (p \supset t)$	T_1
q	Axiom 1
$p \supset t$	T_1, Axiom 1, MP
$t \supset u$	Axiom 5, BC
$u \supset y$	Axiom 6
y	Axiom 5, 6, MP

Theorem 5 $p \supset x \wedge w \wedge y$

Proof: **Prove** $p \supset x \wedge w \wedge y$



T_2
T_3
T_4
T_2, T_3, T_4, MP, Adj.

OLIVER-SHAVER-NEWMANN APPROACH

1 - Definitions of Terms

p: social education

q: rational discussion of public issues

r: policies assymmetrically distribute social and political resources

t: need for conflict clarification

u: focus on human dignity

v: rational consent

w: freedom of choice

x: focus on rationality

y: clarifying diversity of viewpoints

z: focus on issues that transcend topics

z_1: analytical skills

z_2: information

z_3: values

2 - Axioms

Axiom 1 r

Social policies assymmetrically distribute social and political resources.

". . . discussion on such problems is ignited or stimulated when a policy proposed by one group is perceived as threatening or harmful to another. . ."

Axiom 2 $r \supset t$

The assymmetric distribution of social and political resources creates a need for conflict clarification.

"We assume that because of the real or perceived harm arising out of policy recommendations, policy advocates are obligated to give reasons for their views." (Newmann and Oliver, 1970, p. 82.)

"The thrust of citizenship education should not be educators transmitting to students specific views of reality that educators have found to be correct, but rather supplying the student with an analytical scheme and diverse viewpoints that he may use to clarify conflicting commitments in ways that make sense to him and can be defended in public." (Newmann and Oliver, 1970.)

Axiom 3 $t \supset q$

The need for conflict clarification requires a rational discussion of public issues.

"The 'rational' aspect of this value (rational consent) emphasizes reasoned discussion as a way of developing one's personal positions on public issues and of resolving issues among disputing parties." (Newmann and Oliver, 1970, p. 24.)

Axiom 4 $q \supset v \wedge w$

A rational discussion of public issues implies freedom of choice and rational consent.

". . . we believe men must develop a process for arriving at collective decisions, a process that affirms the right of each person to have voice in the public decisions that affect him and favors a method of reasoned discussion and free exchange of views through which each person decides what his position will be. We combine these ideas in the value rational consent, which we consider equal in significance to freedom of choice (pluralism) as a requisite to human dignity." (Newmann and Oliver, 1970, p. 20.)

Axiom 5 $v \supset u$

Rational consent is necessary for human dignity.

"We assume considerable disagreement and ambiguity in the definition of human dignity, but suggest two pheonomna as requisite to its fulfillment: freedom of choice by which to deal with conflicts arising out of the pluralism we advocate. The conception of citizenship education advanced in this book attempts to define and implement, for the most part, one value: rational consent." (Newmann and Oliver, 1970, p.33.)

Axiom 6 $u \supset y$

Human dignity requires the clarification of different viewpoints.

"For a person or group to gain public, legitimate recognition of his definition of dignity, he must translate his purposes into language consistent with Creed (American) values." (Newmann and Oliver, 1970, p. 17.)

Axiom 7 $y \not\equiv x$

Clarifying different viewpoints occurs if and only if education focuses on rationality.

"Rational discussion allows consideration of diverse viewpoints, regardless of their source." (Newmann and Oliver, 1970, p. 24.)

Axiom 8 $x \supset z_1 \wedge z_2 \wedge z_3$

Rationality implies the development of analytical skills, acquisition of information, and value clarification which necessitates the consideration of issues that transcend topics.

and

Axiom 9 $z_1 \wedge z_2 \wedge z_3 \supset z$

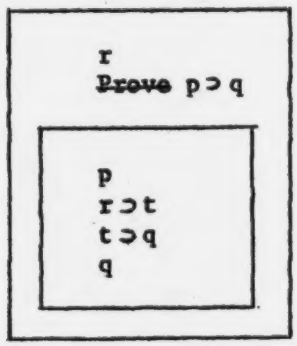
If analytical skills, information, and values are stressed, then social education should focus on issues that transcend topics.

"Rational discussion involves questioning, examining, and building rationales or justifications behind positions or policy judgments usually involve three broad types of issues: moral or value issues; issues of definition, and issues of fact and explanation." (Newmann and Oliver, 1970, p. 43.)

3 - Theorems and Proofs

Theorem 1 $r \supset (p \supset q)$

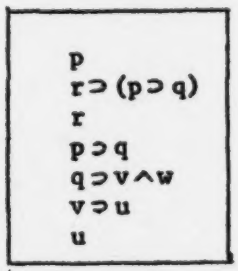
Proof: **Prove** $r \supset (p \supset q)$



Axiom 2
Axiom 3
Axiom 2,3, MP

Theorem 2 $p \supset u$

Proof: **Prove** $p \supset u$



T_1
Axiom 1
T_1, Axiom 1, MP
Axiom 4
Axiom 5
Axiom 4, MP, S,
Axiom 5, MP

Theorem 3 $p \supset x$

Proof: **Prove** $p \supset x$

T_2
Axiom 6
Axiom 7, BC
T_2, Axiom 6,7, MP

Theorem 4 $p \supset z$

Proof: **Prove** $p \supset z$

p	
$p \supset x$	T_3
$x \supset z_1 \wedge z_2 \wedge z_3$	Axiom 8
$z_1 \wedge z_2 \wedge z_3 \supset z$	Axiom 9
z	T_3, Axiom 8, 9, MP

Theorem 5 $p \supset ((u \supset x) \supset z)$

Proof: **Prove** $p \supset ((u \supset x) \supset z)$

$p \supset u$	T_2
$u \supset x$	T_2, Axiom 6, 7, MP
$p \supset x$	T_3
$p \supset (u \supset x)$	T_2, T_3
$x \supset z$	Axiom 8
$p \supset z$	T_4
$p \supset (x \supset z)$	T_3, T_4
$p \supset ((u \supset x) \supset z)$	T_2, T_3, T_4

CHERRYHOLMES' APPROACH

1 - Definitions of Terms

p: social education

q: maximize the ability of students to make socially effective choices

r: students need to act effectively

s: students are social actors

t: the study of decision-making as it is affected by institutional contexts

u: a study of decision-making as future-oriented

w: continuous learning

2 - Axioms

Axiom 1 s

Students are social actors

"Students are social actors engaged in purposive decision-making who process information in acquiring and acting upon normative and empirical beliefs about social phenomena." (Cherryholmes, 1971, p. 3.)

Axiom 2 $s \supset r$

Because students are social actors, they need to act effectively.

"Political education should increase the ability of students as social actors to act effectively." (Cherryholmes and Abramson, 1972, p. 2.)

Axiom 3 $r \supset q$

If students are to act effectively, then their ability to make effective choices should be maximized.

"If students are to act effectively, then they should make socially effective choices." (Cherryholmes and Abramson, 1972, p. 3.)

Axiom 4 $q \equiv t$

Students' ability to make effective choices is maximized if and only if choices are made in social and political institutional contexts.

"Since characteristics of political institutions often promote particularistic value systems, we must go beyond a discussion of analytic decision models and analyze decision-making within specific institutional contexts." (Cherryholmes and Abramson, 1972, p. 18.)

Axiom 5 $q \equiv u$

Effective decisions are maximized exactly on the condition that choices are future oriented.

"By investigating alternative futures our attention moves from discrete choices to more far-reaching social and political alternatives. Even if we teach students to employ analytic decision models we would not assume that they will (1) be aware of possible and probably alternative models of individual behavior or (2) be aware of possible alternative social arrangements and organizations." (Cherryholmes and Abramson, 1972, p. 20.)

Axiom 6 $q \equiv w$

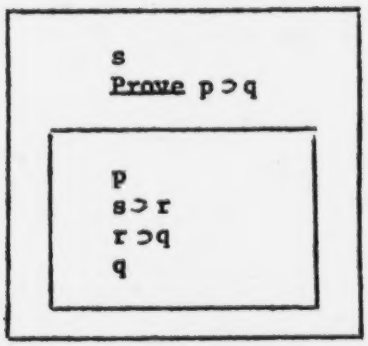
Effective choices are maximized if and only if students are continuous learners.

"Throughout their lives students will be expected to make effective choices and to explore alternative futures." (Cherryholmes and Abramson, 1972, p. 26.)

3 - Theorems and Proofs

Theorem 1 $s \supset (p \supset q)$

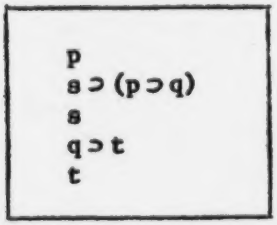
Proof: ~~Prove~~ $s \supset (p \supset q)$



Axiom 2
Axiom 3
Axiom 2, 3, MP

Theorem 2 $p \supset t$

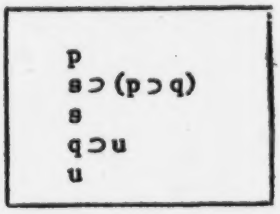
Proof: ~~Prove~~ $p \supset t$



T_1
Axiom 1
Axiom 4, BC
Axiom 1, Theorem 1, MP,
Axiom 4, MP

Theorem 3 $p \supset u$

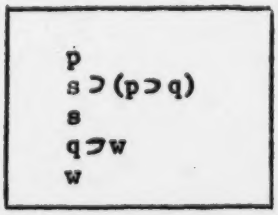
Proof: ~~Prove~~ $p \supset u$



T_1
Axiom 1
Axiom 5, BC
Axiom 1, Theorem 1, MP,
Axiom 5, MP

Theorem 4 $p \supset w$

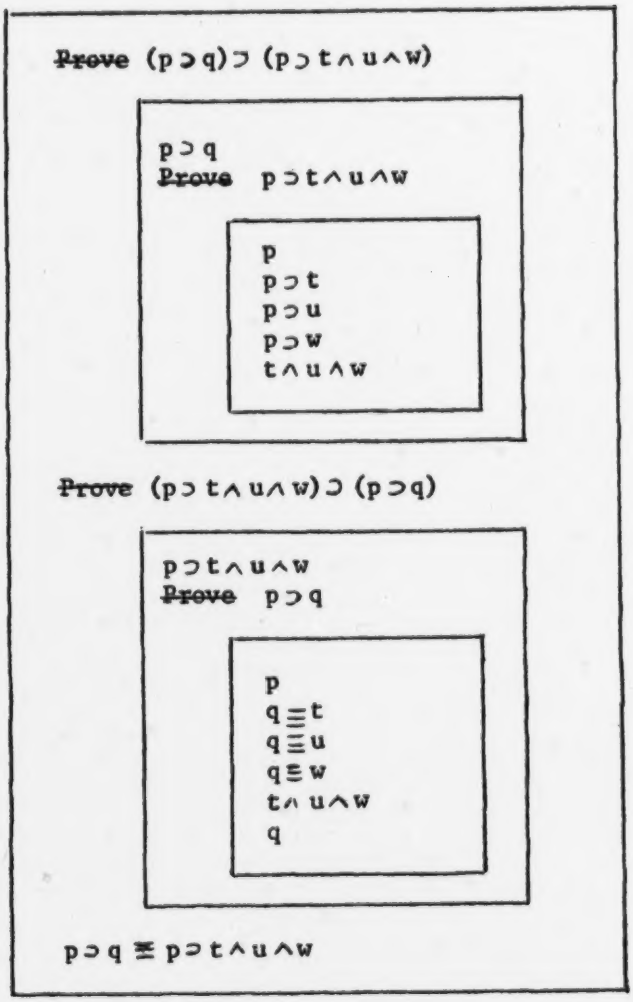
Proof: ~~Prove~~ $p \supset w$



T_1
Axiom 1
Axiom 6, BC
Axiom 1, Theorem 1, MP,
Axiom 6, MP

Theorem 5 $p \supset q \equiv p \supset t \wedge u \wedge w$

Proof: Prove $p \supset q \equiv p \supset t \wedge u \wedge w$



T_2
T_3
T_4
T_2, T_3, T_4, MP, Adj.

Axiom 4
Axiom 5
Axiom 6
MP
Axiom 4, 5, 6, BC, MP